



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	LAKE MACY NEAR CENTER				Sample Date:	6/8/2023	
WIN / Field ID:	G2CE0269	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.97279
County:	VOLUSIA	WBID:	2938H	LAKE		Longitude:	-81.232763
Receiving Body of Water:	-				RQ-	2023-06-05-29	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman		x		x	x
Victoria Schwartz	x		x		

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
x	Syringe		Pole
	Syringe Lot# 2327923		Filter Lot# 17769663
	Secchi Equipment ID:	Light	
Collection Method			
	Wading	x	Canoe/Kayak
	From Shore		Electric Motor
			Gasoline Motor
	Depth Measured With	Secchi	

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Shrimp Trap
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1305	2.2	0.3	5.19	67	28.6	6.37	1.5	138.9	0.06
	1310		1.7	3.45	43.8	27.5	6.4		137.8	0.06

Biological Samples Collected:

LVI

SBIO Visit ID:

87125

HA ID:

RPS ID:

Macrophyte ID:

12467

LIMS Sample ID Entered

Into The Macrophyte Module:

2416421

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology							
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:2327923; Filter Lot#:17769663		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	1/25/24
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2230040	9/1/23
Organics (LC)	W-E8321-DI	W-E8321-MS					
Macroinvertebrates							
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
DOC					SyringeLot#		FilterLot#
Other(s)							
Field Comments:	Overcast with off and on rain throughout the day						
Comments on COC:							
Relinquish Date:	06/08/2023	Signature:					

LIMS EVENT ID: CEN-DIST-2023-06-09-01

WIN Import ID: 41615

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 6/27/23

QC Station ID, Field Parameters In LIMS DMT: VLS 6/30/23

Save Field Sheets on Network: KWM 7/19/23 (Initials/Date)

Migrate Data to WIN: KWM 7/19/23 (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** _____ **LATITUDE:** 28.972787
COUNTY: Volusia **STORET #:** GACE0269 **LONGITUDE:** -81.2337628
DATE: 6/8/23 **TIME:** 13:05 **SAMPLING AGENCY:** 21FLCEN
SITE NAME: Lake Mary near Center **WBID:** 29384
FIELD ID/NAME: GACE0269 **LAKE SIZE:** _____ **RQ:** 2023-06-05-29

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)				
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)							
<u>50</u>				<u>50</u>										
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy										Artificially Impounded				
Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy										☐ Yes ☒ No				
STORMWATER INPUTS		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place						
<u>18</u>														
LAKESIDE ALTERATIONS		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)		Many structures, roads or other human disturbance visible (50%-70% lakeside affected)		Highly developed or disturbed (>70% of lakeside affected)						
<u>15</u>														
BUFFER ZONE		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer		< 29% of shoreline with >18m buffer						
<u>16</u>														

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☒ Low ☐ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____ Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>28.6</u> <u>6.37</u> <u>5.19</u> <u>67</u> <u>138.9</u> <u>0.06</u> Mid-Depth: _____ Bottom: <u>1.7</u> <u>27.5</u> <u>6.4</u> <u>3.45</u> <u>43.8</u> <u>137.8</u> <u>0.06</u>								Clarity: ☐ Clear ☒ Slightly Turbid ☐ Opaque ☐ Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) <u>1.5</u> Total Station Depth (M) <u>2.2</u> VOB ☐							
Sediment Type: (may check more than one) ☐ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☒ Organic smooth (muck) ☐ Other (Specify): _____								Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____							
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☒ No Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know								Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☐ ☒ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☒ ☐ ☐ ☐ Exotic Apple Snails ☐ ☒ ☒ ☐							
Additional Notes: <u>Cyperus blepharoptos has been sprayed along entire shoreline but still has large patches growing back</u>															
Weather Conditions: <u>Overcast w/ rain</u>															
SAMPLING TEAM: <u>Leif Boman / Victoria Schwartz</u>								SIGNATURE: <u>[Signature]</u>				DATE: <u>6/8/23</u>			

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Macy</u>	County: <u>Volusia</u>	Date: <u>6/8/23</u>	
Analyst: <u>Leif Boman / Victoria Schuch</u>	Signature: <u>[Signature]</u>	STORET: <u>GACE0269</u>	
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.		Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 3, 6, 9, 12	
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.			
SPECIES	1 4 7 10 Collected? (✓)	SPECIES	1 4 7 10 Collected? (✓)
Acer rubrum	/	Fraxinus	
Alternanthera philoxeroides	/	Fuirena scirpoidea	
Amaranthus australis		Gordonia lasianthus	
Andropogon sp.		Habenaria repens	
Azolla filiculoides (A. caroliniana)		Hibiscus coccineus	/
Baccharis sp.	/	Hibiscus grandiflorus	/
Bacopa caroliniana		Hydrilla verticillata	
Bacopa monnieri		Hydrocotyle sp.	/
Bidens alba		Hygrophila polysperma	/
Bidens laevis		Hymenocallis sp.	
Bidens mitis		*Hypericum fasciculatum	
Boehmeria cylindrica		*Hypericum hypericoides	
Brasenia schreberi		*Hypericum myrtifolium	
Cabomba caroliniana		Ilex cassine	
Canna sp.		Ipomoea aquatica	
Centella asiatica		Ipomoea sagittata	
Cephalanthus occidentalis	/	Itea virginica	
Ceratophyllum demersum	/	Juncus effusus	
Chara sp.		*Juncus marginatus	
Cicuta maculata		*Juncus megacephalus	
Cinnamomum camphora		Juncus repens	
Cladium jamaicense		*Juncus scirpoides	
Colocasia esculenta		Lachnanthes caroliniana	
*Commelina		Leersia hexandra	
Crinum americanum		Landoltia punctata (Spirodela punctata)	
Cyperus articulatus	<u>D C C C</u>	Lemna sp.	/
Cyperus blepharoleptos (Scirpus cubensis)		Leucothoe racemosa (Eubotrys racemosa)	/
Cyperus haspan		Limnobia spongia	
*Cyperus involucratus		Limnophila sessiliflora	
*Cyperus lecontei		Liquidambar styraciflua	
*Cyperus odoratus		*Ludwigia arcuata	
*Cyperus polystachyos		*Ludwigia grandiflora	
*Cyperus surinamensis		*Ludwigia hexapetala	
Cyrtilla racemiflora		*Ludwigia leptocarpa	
Decodon verticillatus		Ludwigia (native)	
Diodia virginiana		*Ludwigia octovalvis	
*Echinochloa crus-galli		*Ludwigia peruviana	/
*Echinochloa muricata		*Ludwigia repens	/
Echinochloa walteri		Ludwigia suffruticosa	
Eclipta prostrata		Luziola fluitans (Hydrochloa carolinensis)	
Eichhornia crassipes		Magnolia virginiana	
*Eleocharis		Mayaca fluviatilis	
Eleocharis cellulosa		Melaleuca quinquenervia	
*Eleocharis elongata		Micranthemum glomeratum	
Eleocharis equisetoides		Micranthemum umbrosum	
Eleocharis interstincta		Mikania scandens	/
Eleocharis vivipara (submersed)		Mimosa pigra	/
*Eriocaulon compressum		Myrica cerifera	/
*Eriocaulon decangulare			
Eupatorium capillifolium			

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Lake Macy</u>					Date: <u>6/8/23</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sagittaria arifera					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani					
Nitella spp.						Scirpus cyperinus cubensis					
Nuphar sp.						*Sesbania					
Nymphaea mexicana						Solidago sp.					
Nymphaea odorata						Sparganium americanum					
Nymphoides aquatica						Spartina bakeri					
Nyssa sylvatica var. biflora						Spirodela polyrhiza					
Orontium aquaticum						Taxodium sp.					
Osmunda cinnamomea						Thalia geniculata					
Osmunda regalis						Thelypteris interrupta					
Panicum hemitomon						Thelypteris palustris					
Panicum repens						Triadenum virginicum					
Paspalum geminatum						Typha sp.					
*Paspalum repens						Urochloa mutica (Brachiaria mutica)					
Paspalum urvillei						*Utricularia gibba (U. biflora)					
Peltandra sp.						*Utricularia foliosa					
Persea sp.						*Utricularia inflata					
*Persicaria glabra (densiflora)						*Utricularia purpurea					
Persicaria hirsuta						*Utricularia radiata					
*Persicaria hydropiperoides						*Utricularia resupinata					
*Persicaria punctata						Vallisneria americana					
*Persicaria						Vitis sp.					
Pennisetum purpureum						*Websteria confervoides					
Phragmites australis						Wedelia trilobata (Sphagneticola trilobata)					
Pinus elliotii						Wolffiella spp.					
Pistia stratiotes						Woodwardia virginica					
Pluchea sp.						Xyris sp.					
Pontederia cordata						Zizania aquatica					
*Potamogeton diversifolius						Zizaniopsis milacea					
*Potamogeton illinoensis											
*Potamogeton pusillus											
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

LVI Map for Lake Macy, WBID 2938H

